

Network lesson Cheat Sheet by Hubert (monsieur_h) via cheatography.com/234/cs/127/

Net/Host ID by Class

- Onnnnnn.HHHHHHHHH.HHHHHHHHHHHH
- 10nnnnnn.nnnnnnnn.HHHHHHHH.HHHHH
- 110nnnnn.nnnnnnnnnnnnn.HHHHHHHH
- XX

Subnetting					
	Binary form	Dot-decim al notation			
IP	11000000.10101000.00	192.168.5.1			
address	000101.10000010	30			
Subnet	11111111.11111111.11	255.255.255			
mask	111111.11000000	.192			
Network	11000000.10101000.00	192.168.5.1			
prefix	000101.10000000	28			
Host part	00000000.00000000.00 000000.00000010	0.0.0.2			

Network Topology

OBEY

Examples of differents networks topologies.

By **Hubert** (monsieur_h) cheatography.com/monsieur-h/ Three way handshake

Illustrates the three way handshake used for TCP connections.

IP I	Frame	:			
	Dest. MAC (6 octets)	T	acket ype ID octets)		FCS (4 octets)
		Src. MAC (6 octets)		User Data (46 - 1500 octets)	
	Data	link header	-	Data and CRC	

TCP/IP - Clas	s ranges		
Class	Range	Private	
Class A	0.0.0.0- 127.255.255.255	10.0.0.0/8	
Class B	128.0.0.0- 191.255.255.255	172.16.0.0/12	
Class C	192.0.0.0- 223.255.255.255	192.168.0.0/16	
Class D (multicast)	224.0.0.0- 239.255.255.255	nope	
Class E (reserved)	240.0.0.0- 255.255.255.255	nope	

IEEE 802 802.3 - Ethernet 802.11a/b/g/n - Wifi 802.8 - Fiber Optic 802.15.1 - Bluetooth 802.16 - WiMAX

OSI - Protocol - Device			
7 Application	FTP,HTTP,DNS,SSF	I,DHCP	
6 Presentation	SMB,ASCII,AFP	Router	
5 Session	TCP,UDP	Switch	
4 Transport	ARP,IP,ICMP	Hub	
3 Network	HDLC,PPP		
2 Link	ARP,Ethernet,Token irDA	Ring,	
1 Physical	ADSL, LDSL, USB		

DHCP	
Client	Server
DHCP D	iscover>
	< DHCP Offer
DHCP R	equest>
	< DHCP Acknowledgement

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